

By [signature]  
the antigenic molecule and ADP to form a heat shock protein 70 complex.

---

#### REMARKS

The specification has been amended, in part, to correct minor typographical or editorial errors. No new matter has been introduced.

Specifically, "VYDAC" at page 31 has been properly identified as a trademark and its source has been indicated, Separations Group, Inc. inherently being the owner of such registered trademark and, thus, the source of the product.

Support for the amendment at page 37, lines 8 and 18, with respect to mixed lymphocyte tumor cell assay, can be found, for example at page 55, line 16.

Support for the amendments, at pages 14 and 60, to the references to Figures 5A and 5B, which were inadvertently reversed, can be found, for example in the figures themselves. In particular, Figure 5A contains a reference to ATP in the text above the graph, and Figure 5B contains a reference to ADP in the text above the graph. Moreover, it would be readily apparent to one of ordinary skill in the art the graph in Figure 5B indicates the association of peptides with heat shock protein 70 (ADP-bound and ADP eluted), whereas Figure 5A indicates, in comparison, a lack of association of peptides with heat shock protein 70 (ATP-bound and ATP eluted).

Support for the amendments at pages 53 and 54 regarding UV6139SJ cells can be found, for example, in at page 13, line 3; and page 54, lines 4 and 5.

The specification has been amended at page 16, line 25 to replace material incorporated by reference with actual text referred to, in accordance M.P.E.P 2163.07(b) and 608.01(p). No new matter has been introduced. More specifically, Gething, et al., 1992 *Nature* 355:33-45 (a copy of which is attached hereto as Exhibit A); and Lindquist, et al., 1988, *Annu. Rev. Genetics* 22:631-677 (a copy of which is attached hereto as Exhibit B) were each incorporated by reference at page 16, lines 19-21 of the specification with respect to the preceding description, at page 16, lines 6-16, of the members of hsp60, hsp70, and hsp90 families of proteins. Accordingly, the actual text of Table 1 at page 35 of Gething et al., which describes various family members of each of these protein families, has been included in the specification. In addition, the actual text of the first two sentences below the heading "*Saccharomyces cerevisiae*" at page 642, lines 5-10 of Lindquist et al., which describes the genes encoding the members of the hsp70 protein family in *Saccharomyces cerevisiae*, has been included in the specification.

Applicant submits herewith a Declaration under 37 C.F.R. § 1.68 and M.P.E.P. 608.01(p) which states that the amendatory material that was included in the specification at page 16, line 25 consists of the same material incorporated by reference in the application as filed at page 16, lines 19-21.

The name of the table at page 20, line 21 of the specification as filed has been changed from Table 1 to Table

2 to reflect the inclusion of the actual text of Table 1 from Gething et al. at page 16, line 25, as set forth above.

The specification has been amended at page 30, line 32 to recite an inherent property of the methods described at page 30, lines 28-34, in accordance with M.P.E.P. 2163.07(a). See *In re Reynolds*, 443, F.2d 384, 170 USPQ 94 (CCPA 1971); *In re Smythe*, 480 F.2d 1376, 178 USPQ 279 (CCPA 1973). More specifically, the methods described at page 30, lines 28-34 inherently produce denatured products. Thus, no new matter has been introduced.

The specification has been amended at page 36, line 31, and at page 60, line 22, to recite an inherent property of the complex produced by the methods described at page 36, lines 25-32, and at page 60, lines 4-23, respectively, in accordance with M.P.E.P. 2163.07(a). See *In re Reynolds*, 443, F.2d 384, 170 USPQ 94 (CCPA 1971); *In re Smythe*, 480 F.2d 1376, 178 USPQ 279 (CCPA 1973). More specifically, the methods described at page 36, lines 25-32, and at page 60, lines 5-25 inherently produce ADP-hsp70-peptide complexes. Thus, no new matter has been introduced.

Claims 60-77 are currently pending, new Claims 62-77 having been added in the present amendment. New Claims 62-77 are completely supported in the specification, and no new matter has been introduced.

Support for new Claim 62 can be found, for example, at page 25, lines 1-17; in Section 9 (page 60, lines 5-35), in Figures 5A and 5B; page 32, line 8 (with respect to polypeptides); page 10, line 17; page 22, line 30 to page 23,

line 4; page 30, lines 28-34 in the specification as filed and the text that was inserted at page 30, line 32 by the amendment above (with respect to denatured proteins); and page 33, line 5 (with respect to antigens).

Support for new Claim 63, with respect to a cell lysate, can be found, for example, at page 60, line 14.

Support for new Claims 64, 67, and 69, with respect to the specified members of the hsp70 family, can be found for example at page 16, lines 8-24; page 16, line 36 to page 17, line 18; and by the text from Gething, et al., 1992 *Nature* 355:33-45, and Lindquist, et al., 1988, *Annu. Rev. Genetics* 22:631-677, which was included in the specification by virtue of the amendment at page 16, line 25 set forth above.

Support for new Claim 65 can be found, for example, at page 36, lines 25-32; page 29, line 28 (with respect to peptides); page 10, line 17; page 22, line 30 to page 23, line 4; page 32, line 8 (with respect to polypeptides); page 30, lines 28-34 in the specification as filed and the text that was inserted at page 30, line 32 by the amendment above (with respect to denatured proteins); and page 33, line 5 (with respect to antigens).

Support for new Claim 66 can be found, for example, at page 36, line 30.

Support for new Claim 68 can be found, for example, at page 25, lines 1-17; in Section 9 (page 60, lines 5-35 of the specification as filed and the text that was inserted at page 60, line 22 by the amendment above); in Figures 5A and 5B; and page 36, lines 25-32 in the specification as filed and

the text that was inserted at page 36, line 31 by the amendment above, which describe substantially purified ADP-hsp70-peptide complexes and methods for producing such complexes.

Support for new Claim 70, with respect to polypeptides and proteins, can be found throughout the specification, including, for example, page 10, line 17; page 22, line 30 to page 23, line 4; and page 32, line 8.

Support for new Claim 71, with respect to a synthetic heat shock protein-peptide complex, can be found, for example at page 36, lines 25-32.

Support for new Claims 72 and 73, with respect to the sources of the heat shock protein and the peptide, can be found, for example, at page 10, lines 8-11; and page 35, line 25 to page 36, line 1.

Support for new Claims 74 and 75, with respect to the sources of the heat shock protein and the peptide, can be found, for example, at page 10, lines 8-11; page 15, line 31; page 29, lines 17-24; page 30, lines 6-12; throughout Section 5.2.5 (page 33, line 4 to page 35, line 22); and page 35, line 25 to page 36, line 1.

Support for new Claim 76 can be found, for example, at page 25, lines 1-17; in Section 9 (page 60, lines 5-35 of the specification as filed and the text that was inserted at page 60, line 24 by the amendment above); and in Figures 5A and 5B; which describe substantially purified ADP-hsp70-peptide complexes and methods for producing such complexes.

Support for new Claim 77 can be found, for example, at page 36, lines 25-32 in the specification as filed and the

text that was inserted at page 36, line 31 by the amendment above, which describe substantially purified ADP-hsp70-peptide complexes and methods for producing such complexes.

Applicant respectfully requests that the above-made amendments and remarks be entered and made of record in the file history of the instant application.

Respectfully submitted,

PENNIE & EDMONDS LLP

Date: January 13, 1999

 Jonathan L. Klein 41,119  
(Reg. No.)

**PENNIE & EDMONDS LLP**

1667 K Street, N.W.

Washington, D.C. 20006

(202) 496-4400